

Written Examination Study Guide

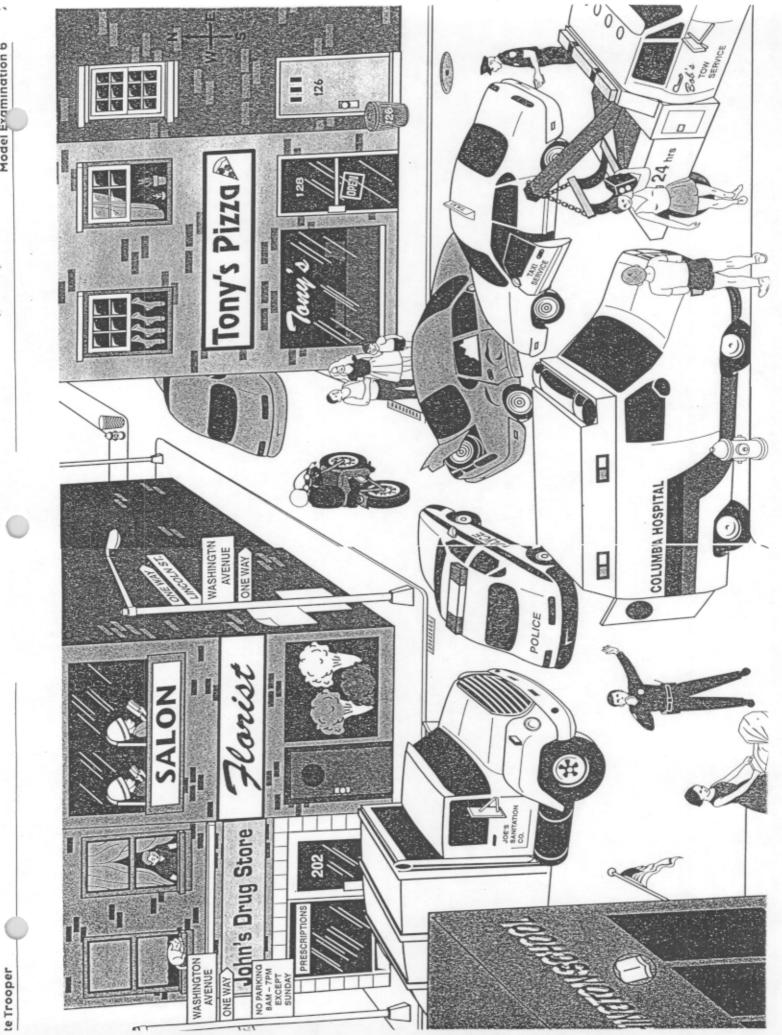
Memory and Observation

Model Examination 6

Time: 4 Hours-100 Questions

MEMORY BOOKLET ONE

Directions: You will be given 5 minutes to study the scene that follows and to try to notice and remember as many details as you can. You may not take any notes during this time.



Test Questions

Directions: Answer questions 1 through 10 on the basis of the sketch that you just studied. You will have 10 minutes to answer these questions.

1.	The number of people clearly visible at street level in this scene is
	(A) 7
	(B) 8
	(C) 9
	(D) 10
2	From all appearances, the accident was caused by
	(A) a tow truck that cut off a taxi
	(B) a taxi going the wrong way on a one-way street
	(C) a motorcycle that distracted a driver
	(D) a taxi that ran a red light
3.	The officer wearing a hat is
	(A) directing traffic
	(B) standing near the garbage truck
	(C) wearing a long-sleeved shirt
	(D) standing beside a tow truck
4.	There is a manhole cover in the street in front of
	(A) #126 Washington Avenue
	(B) #126 Washington Street
	(C) #126 Lincoln Avenue
	(D) #126 Lincoln Street
5.	The name of the private sanitation company that owns the sanitation truck is
	(A) Joe's
	(B) John's
	(C) Tony's
	(D) Bob's
6.	The beauty parlor is above the store at number
	(A) 130
	(B) 200
	(C) 202
	(D) 204

- 7. The sign on the window of Tony's Pizza parlor says,
 - (A) "Open"
 - (B) "Pizza"
 - (C) "Eats"
 - (D) "Tony's"
- 8 In a window above the drug store can be seen
 - (A) potted plants
 - (B) drying laundry
 - (C) a resting cat
 - (D) a little boy with a yo-yo
- 9. At the front of the school can be seen
 - (A) a fire hydrant
 - (B) an American flag
 - (C) a street light
 - (D) a wire trash can
- 10. The person on a motorcycle is
 - (A) traveling north on a one-way street
 - (B) traveling north on a two-way street
 - (C) traveling east on a one-way street
 - (D) traveling west on a two-way street

DIRECTIONAL ORIENTATION

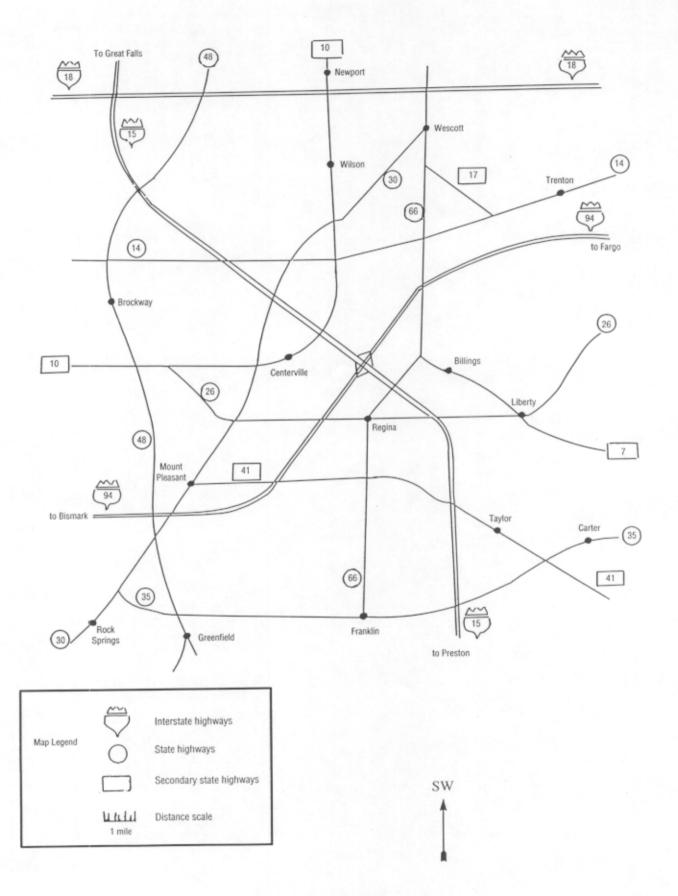


Diagram C

Answer questions 25-33 on the basis of Diagram C.

- 25. If a motorist intended to drive from Regina to Liberty on State Highway 26, which direction would he or she be traveling?
 - A. Northwest
 - B. West
 - C. North
 - D. Southeast
- 26. The stretch of secondary highway that effectively serves as a shortcut for motorists traveling between the towns of Wescott and Trenton has which of the following directional orientations?
 - A. East-west
 - B. Southwest-northeast
 - C. Northwest-southeast
 - D. North-south
- 27. Where is the town of Greenfield with respect to Mount Pleasant?
 - A. Southwest
 - B. North
 - C. Southeast
 - D. Northeast
- 28. All of the following statements are true with regard to Diagram C except:
 - A. State Highway 48 intersects three different interstate highways.
 - B. The most direct way of getting to Rock Springs from Liberty is to take State Highway 26 to State Highway 30 and turn west.
 - C. The shortest secondary state highway shown is Route 17.
 - D. The towns of Centerville, Newport, Taylor, Billings and Wilson are all located along various secondary state highways.
- 29. Trooper Beaumont was en route to a scheduled court appearance in Fargo. Assuming he had just turned onto Interstate 94 from State Highway 41, what direction would he initially be traveling?
 - A. Southeast
 - B. North
 - C. West
 - D. East

- 30. State Patrol Officer Kyle Talbott was heading northeast on State Highway 10 just outside of Newport when he received a dispatch to investigate a two-car collision approximately one mile southwest of Brockway. The shortest means of approach that Officer Talbott could take to get to the scene of the accident from his present location is which of the following?
 - A. Stay on State Highway 10 until reaching State Highway 48, and then proceed southwest to the accident scene.
 - B. Continue northeast on State Highway 10 to State Highway 14, turn right and follow Route 14 to State Highway 48, and then turn left and proceed to where the accident occurred.
 - C. Continue northeast on State Highway 10 to State Highway 30, turn right and follow Route 30 to State Highway 14, turn right and follow Route 14 to State Highway 48, and then head northeast on Route 48 to where the accident occurred.
 - D. Continue northeast on State Highway 10 to State Highway 30, turn right and follow Route 30 to State Highway 14, turn right and follow Route 14 to State Highway 48, and then head southwest on Route 48 to where the accident occurred.
- 31. According to an updated dispatch roster:

State Police Unit #573 is presently located approximately five miles southwest of Franklin on State Highway 66.

State Police Unit #301 is presently located approximately two miles northeast of Wescott on State Highway 66.

State Police Unit #704 is presently located approximately three miles east of Mount Pleasant on State Highway 30.

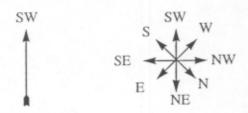
State Police Unit #187 is presently located at the intersection of Interstate 18 and State Highway 48.

Based on these given locations, which particular unit would be in the best position to intercept, if not block, a suspect vehicle traveling north on Interstate 15 heading to Preston that had just passed the State Highway 30 interchange?

- A. Unit #573
- B. Unit #301
- C. Unit #704
- D. Unit #187
- 32. According to the same dispatch roster in the previous question, which particular unit would be in the best position to investigate a minor traffic accident that occurred on State Highway 48 approximately one mile northeast of Interstate 18?
 - A. Unit #573
 - B. Unit #301
 - C. Unit #704
 - D. Unit #187
- 33. Assuming State Police Officers Murry and Downs were patrolling the towns of Newport and Rock Springs respectively, if the pair wanted to meet at a halfway point to compare notes on an ongoing criminal investigation, what line of travel would be necessitated on Officer Murry's behalf to attend?
 - A. West on State Highway 30 to Mount Pleasant.
 - B. Northeast on Secondary State Highway 10 to Centerville.
 - C. West on State Highway 30 to Secondary State Highway 10 and then northwest on Route 10 to Centerville.
 - D. Northeast on Secondary State Highway 10 to Wilson.

ANSWERS TO DIRECTIONAL ORIENTATION QUESTIONS

25. A. Northwest. To eliminate any potential confusion, it is strongly suggested that you extrapolate all of the major compass headings from what is provided in the map's legend. Then it will be easier to make directional references from any given point.



- 26. D. Secondary State Highway 17 has a north-south directional orientation.
- D. Northeast. Selection A would have been the correct answer had the question asked been where was the town of Mount Pleasant with respect to Greenfield.
- 28. B. The directions in this selection are correct up until the point of heading west on State Highway 30. A right turn (i.e., western heading) would be a means of getting to Wescott instead of Rock Springs.
- 29. C. West
- 30. C. Selection D is correct up until the point of turning southwest on State Highway 48 in an attempt to reach the accident scene. Instead of going northeast towards the town of Brockway where the accident actually happened, Officer Talbott would, in fact, be headed towards Interstate 15.
- 31. A. Since State Police Unit #573 is proximate to the town of Regina, it would be in the best position to conduct an intercept of the suspect vehicle. The short distance from that point to

Interstate 15 via Route 66 or 26 would allow the officer in question sufficient time to place his or her unit in advance of the approaching vehicle.

- D. Unit #187 is less than five miles away from the given accident; it would be in the best position to respond.
- 33. B. Centerville is as close to the halfway point as it gets between the officers' respective positions. Officer Murry would have to travel northwest on Route 10 to get there. Selection C is the correct means for Officer Downs to reach Centerville from Rock Springs, however, the question only concerns Officer Murry's perspective. Neither selection A or D (i.e., Mount Pleasant or Wilson) can serve as halfway points for the question.

Arithmetic Reasoning



ARITHMETIC REASONING

Directions

This test has questions about arithmetic. Each question is followed by four possible answers. Decide which answer is correct. Then, on your answer form, blacken the space which has the same number and letter as your choice. Use your scratch paper for any figuring you wish to do.

Here is a sample question.

- If 1 quart of milk costs \$0.80, what is the cost of 2 quarts?
 - 1-A \$2.00
 - 1-B \$1.60
 - 1-C \$1.20
 - 1-D \$1.00

The cost of 2 quarts is \$1.60; therefore, the answer 1-B is correct.

Your score on this test will be based on the number of questions you answer correctly. You should try to answer every question. Do not spend too much time on any one question.

Notice that Part 2 begins with question number 1. When you begin, be sure to mark your first answer next to number 1 on your answer form.

ARITHMETIC REASONING

Time: 36 minutes; 30 questions

 The Parkers bought a table that was marked \$400. On the installment plan, they made a down payment equal to 25% of the marked price, plus 12 monthly payments of \$30 each. How much more than the marked price did they pay by buying it this way?

1-A \$25

1-B \$50

1-C \$60

1-D \$460

2. A scientist planted 120 seeds, of which 90 sprouted. What percent of the seeds failed to sprout?

2-A 25%

2-B 24%

2-C 30%

2-D 75%

3. An airplane traveled 1,000 miles in 2 hours and 30 minutes. What was the average rate of speed, in miles per hour, for the trip?

3-A 200 miles per hour

3-B 300 miles per hour

3-C 400 miles per hour

3-D 500 miles per hour

4. What is the value of this expression?

 $\frac{0.05 \times 4}{0.1}$

4-A 20

4-B 2

4-C 0.2

4-D 0.02

Joan Smith's bank balance was \$2,674. Her bank balance changed as follows over the next four-month period:

-\$348, +\$765, +\$802, -\$518 What was her bank balance at the end of the four-month period?

5-A \$5,107

5-B \$4,241

5-C \$3,475

5-D \$3,375

6. A canteen sold 12½ gallons of milk at 35 cents a pint. How much did the canteen receive for the milk?

6-A \$33.60

6-B \$34

6-C \$35

6-D \$32.20

7. A square measures 9 feet on a side. If each side of the square is increased by 3 feet, how many square feet are added to the area?

7-A 144

7-B 81

7-C 60

7-D 63

8. What is the average of 1/4 and 1/6?

8-A 5/24

8-B 7/24

8-C 5/12

8-D 1/5

9. Joe Gray's salary was increased from \$260 per week to \$290 per week. What was the increase in his salary, to the nearest percent?

9-A 12%

9-B 11%

9-C 10%

9-D 9%

10. If 1 pound, 12 ounces of fish costs \$2.24, what is the cost of the fish per pound?

10-A \$1.20

10-B \$1.28

10-C \$1.24

10-D \$1.40

11. A front lawn measures 25 feet in length, and 15 feet in width. The back lawn of the same house measures 50 feet in length and 30 feet in width. What is the ratio of the area of the front lawn to the area of the back lawn?

11-A 1:2

11-B 2:3

11-C 3:4

11-D 1:4

12. The price of a car was increased from \$6,400 to \$7,200. What was the percent of increase?

12-A 10%

12-B 111/9%

12-C 121/2%

12-D 15%

13. What is the next term in this series: 3½; 2¼; 13¼; 12; ____?

13-A 11/4

13-B 103/4

13-C 23

13-D 141/2

14. A movie house opens at 10:00 A.M. and closes at 11:30 P.M. If a complete showing of a movie takes 2 hours and 15 minutes, how many complete showings are given at the movie house each day?

14-A 5

14-B 6

14-C 7

14-D 8

15. At a concert, orchestra seats sell for \$20 each, and balcony seats sell for \$10 each. If 324 orchestra seats were occupied, and the box office collected \$10,000, how many balcony seats were sold?

15-A 375

15-B 352

15-C 330

15-D 310

16. In a certain city, taxicab fare is \$0.80 for the first ½ mile, and \$0.20 for each additional ¼ mile. How far, in miles, can a passenger travel for \$5.00?

16-A 5 miles

16-B 41/4 miles

16-C 51/2 miles

16-D 53/4 miles

17. A scale drawing of a building plot has a scale of 1 inch to 40 feet. How many inches on the drawing represent a distance of 175 feet on the plot?

17-A 41/s inches

17-B 43/8 inches

17-C 41/2 inches

17-D 43/4 inches

18. The wholesale list price of a watch was \$50. A dealer bought a shipment of watches at a discount of 20% and sold the watches at 10% above the wholesale list price. What was her profit on each watch?

18-A \$8

18-B \$10

18-C \$12

18-D \$15

19. The minute hand of the clock is missing, but the hour hand is on the 11-minute mark. What time was it when the clock broke?

19-A 5 minutes after 11

19-B 11 minutes after 12

19-C 12 minutes after 2

19-D 20 minutes after 1

20. During a season a professional basketball player tried 320 shots and made 272 of them. What percent of the shots tried were successful?

20-A 85%

20-B 80%

20-C 75%

20-D 70%

21. A painter and a helper spend 3 days painting a house. The painter receives twice as much as the helper. If the two men receive \$375 for the job, how much does the painter receive?

21-A \$175

21-B \$200

21-C \$225

21-D \$250

22. What is the difference between a 50% discount and a discount of 331/3%?

22-A 0.17

22-B 1/3

22-C 0.25

22-D 1/6

23. What is the value of $3a^2 - 2a + 5$, when a = 4?

23-A 43

23-B 45

23-C 61

23-D 21

24. This table gives the annual premiums for a life insurance policy, based on the age of the holder when the policy is taken out.

Age in Years Premium per \$1,000 22 \$18 \$22 30 \$28 38 46 \$38

Over 20 years, how much is saved by taking out a \$1,000 policy at age 30, rather than at age 46?

24-A \$16 24-B \$32 24-C \$320 24-D \$400

25. A chair was marked for sale at \$240. This sale price was 25% less than the original price. What was the original price?

25-A \$300 25-B \$280 25-C \$320 25-D \$60

26. What is the quotient when 0.675 is divided by 0.9?

26-A 7.5 26-B 0.075 26-C 75 26-D 0.75

27. On May 15, an electric meter read 5,472 kilowatt hours. The following month, on June 15, the meter read 5,687 kilowatt hours. The utility charges the following rates for electric service.

First 10 kilowatt hours-\$2.48

Next 45 kilowatt hours-\$0.16 per kilowatt

Next 55 kilowatt hours-\$0.12 per kilowatt

Over 110 kilowatt hours-\$0.07 per kilowatt hour

What was the total charge for the kilowatt hours consumed during the month from May 15 to June 15?

27-A \$22.53

27-B \$23.63 27-C \$22.63

27-D \$24.43

28. What is the difference between the square of 49 and the square of 31?

28-A 18

28-B 11/2

28-C 1,440

28-D 2,056

29. An auditorium contains x rows, with y seats in each row. What is the number of seats in the auditorium?

29-A xy 29-B x + y 29-C x - y 29-D y - x

30. When a certain number is divided by 15, the quotient is 8, and the remainder is 7. What is the number?

30-A 127

30-B 81/2

30-C 33/s

30-D 77

ARITHMETIC REASONING

Answers

1-C	6-C	11-D	15-B	19-C	23-B	27-B
2-A	7-D	12-C	16-C	20-A	24-C	28-C
3-C	8-A	13-C	17-B	21-D	25-C	29-A
4-B	9-A	14-B	18-D	22-D	26-D	30-A
5-D	10-B					

Answers Explained

1-C The down payment was 25% (or ¹/₄) of the total payment.

\$400 × 1/4 = \$100

 $$30 \times 12 = 360 (sum of monthly

payments)

\$360 + \$100 = \$460 (cost on installment plan)

\$460 - \$400 = \$60 (extra cost on installment)

2-A The number of seeds that failed to sprout was

120 - 90 = 30

The percentage of seeds that failed to sprout was

$$\frac{30}{120} = \frac{1}{4} = 25\%$$

3-C To find the average rate of speed, divide the distance covered (1,000 miles) by the time spent traveling (2½ or 2.5 hours). Clear the decimal in the divisor.

$$\frac{1,000}{2.5} = \frac{10,000}{25} = 400$$
 miles per hour

4-B Solve by multiplying first, and then dividing. Clear the decimal in the divisor.

$$\frac{0.05 \times 4}{0.1} = \frac{0.20}{0.1} = \frac{0.2}{0.1} = \frac{2}{1} = 2$$

5-D Find the sum of the deposits and the sum of the withdrawals.

\$765 + \$802 = \$1,567 (deposits)

\$348 + \$518 = \$866 (withdrawals)

Find the difference between deposits and withdrawals.

\$1,567 - \$866 = \$701 (overall gain) Add this gain to the original balance.

\$701 + \$2,674 = \$3,375 (new balance)

6-C Change 12½ gallons into pints. (8 pints = 1 gallon)

121/2 × 8 =

 $25/2 \times 8 = 100$ (pints)

Multiply the cost of 1 pint by 100.

 $$0.35 \times 100 = 35

7-D Multiply one side of a square by itself to find the area. Thus

 $9' \times 9' = 81$ square feet

By adding 3 feet to each side of the 9-foot square, you produce a 12-foot square. Thus

12' × 12' = 144 square feet

Find the difference between the areas of the two squares.

144 - 81 = 63 square feet

8-A First, change both fractions to a common denominator (12) and add them.

$$\frac{1}{4} = \frac{3}{12} \qquad \frac{1}{6} = \frac{2}{12}$$

$$\frac{3}{12} + \frac{2}{12} = \frac{5}{12}$$

To get the average, divide the sum by 2.

$$\frac{5}{12} \div 2 = \frac{5}{12} \times \frac{1}{2} = \frac{5}{24}$$

9-A First find the salary increase.

\$290 - \$260 = \$30 (amount of increase) To find the percent of increase, use the original salary as the base and carry the division out to three decimal places.

 $\frac{\text{(increase)}}{\text{(original salary)}} = \frac{\$30}{\$260} = \frac{3.000}{26} = 0.115$ Bounded to the peacest hundredth 0.115 is

Rounded to the nearest hundredth, 0.115 is 0.12.

$$0.12 = 12\%$$

10-B Express the total weight of the fish in ounces.

1 pound = 16 ounces

16 ounces + 12 ounces = 28 ounces Find the cost of one ounce, and multiply it by 16 to find the cost of 1 pound.

$$$2.24 \div 28 = $0.08$$

 $$0.08 \times 16 = 1.28

11-D Find the area of each lawn.

 $25' \times 15' = 375$ square feet (front lawn)

 $50' \times 30' = 1,500$ square feet (back lawn) To find the ratio, divide one area by the other.

$$\frac{\text{(front lawn)}}{\text{(back lawn)}} = \frac{375}{1,500} = \frac{1}{4}$$

The ratio of the front lawn to the back lawn is 1:4.

12-C Find the amount of price increase.

To find the rate of increase, use the original price as your base.

$$\frac{\text{(increase)}}{\text{(original price)}} = \frac{\$800}{\$6,400} = \frac{1}{8}$$

$$\frac{1}{8} = 12\frac{1}{2}\% \text{ (rate of increase)}$$

13-C Find the relationship between each pair of numbers in the series. Thus

31/2 - 11/4 = 21/4 (31/2; 21/4)

21/4 + 11 = 131/4 (21/4: 131/4)

131/4 - 11/4 = 12 (131/4; 12)

The pattern so far is: -11/4, + 11, -11/4 To continue the series, add 11 to the fourth number in the series: 12 + 11 = 23

14-B Find the number of hours the movie house is open.

From 10:00 A.M. to 10:00 P.M. is 12

From 10:00 P.M. to 11:30 P.M. is 11/2 hours

$$12 + 1\frac{1}{2} = 13\frac{1}{2}$$
 (hours)

Divide this total by the length of time for a complete showing of the movie (2 hours and 15 minutes, or 21/4 hours).

$$13\frac{1}{2} \div 2\frac{1}{4} = \frac{27}{2} \div \frac{9}{4} = \frac{27}{2} \times \frac{4}{9} = 6 \text{ (showings)}$$

15-B Find the amount taken in for orchestra seats.

$$324 \times \$20 = \$6,480$$

Out of \$10,000, the remaining amount came from balcony seats.

Divide this amount by \$10 to find the number of balcony seat tickets that were sold.

16-C Since the first 1/4 mile costs \$0.80, this leaves \$4.20 for the balance of the trip. At \$0.20 for each additional 1/4 mile, find the number of 1/4 miles that \$4.20 will cover. (Clear the decimal in the divisor.)

\$4.20 ÷ \$0.20 =

$$4.2 \div 0.2 =$$

42 ÷ 2 = 21 (additional 1/4 miles)

Add the first 1/4 mile (at \$0.80) to this total.

Change the 1/4 miles to miles.

$$22 \div 4 = 5\frac{1}{2}$$
 (miles for \$5)

17-B Divide the distance by the number of feet (40) to an inch.

$$175' \div 40' = 4^{15}/40 = 4^{3}/8 \text{ (inches)}$$

18-D Find the discounted price paid by the dealer.

\$50 × 20% =

\$50 - \$10 = \$40 (price paid by dealer) Then find the dealer's selling price, based on an increase over the original wholesale list price.

 $$50 \times 0.1 = 5 (increase over list price)

\$50 + \$5 = \$55 (dealer's selling price)

Finally, find the dealer's profit.

- 19-C When the hour hand is on the 10-minute mark, it is actually on the number 2 (for 2 o'clock). The hour hand advances to a new minute-mark every 12 minutes of actual time. Thus, when the hour hand stopped at the 11-minute mark, it was 12 minutes after
- 20-A Divide the number of successful shots by the total number of shots the player tried. Change your answer to a percent.

$$\frac{272}{320} = \frac{34}{40} = \frac{17}{20}$$

$$\frac{17}{20} = 0.85 = 85\%$$

21-D Let x equal the amount the helper receives. Let 2x equal the amount the painter receives. Write an equation to show that, together, they receive \$375 for painting the house.

$$2x + x = $375$$

Combine similar terms, and then divide both sides of the equation by the number with *x*. (This is to undo the multiplication.)

3x = \$375

x = \$125 (the helper's wages)

2x = \$250 (what the painter receives)

22-D Find the difference between the two percents.

Divide the answer by 100% to change it to a simple fraction.

$$16\frac{2}{3}\% \div 100\% = \frac{50}{3} \div \frac{100}{1}$$
$$= \frac{50}{3} \times \frac{1}{100}$$
$$= \frac{50}{300} = \frac{1}{6}$$

23-B To solve, substitute the number value for the letter and do the arithmetic operations.

$$3a^{2} - 2a + 5 =$$

$$(3 \times a^{2}) - (2 \times a) + 5 =$$

$$(3 \times 4^{2}) - (2 \times 4) + 5 =$$

$$(3 \times 16) - (2 \times 4) + 5 =$$

$$48 - 8 + 5 =$$

$$40 + 5 = 45$$

24-C Find the annual difference between the premium paid by someone who is 30 and the premium paid by someone who is 46.

Multiply the answer by 20 to find the total amount saved over 20 years by taking out a policy at an earlier age.

$$$16 \times 20 = $320 \text{ (saved)}$$

25-C On sale, the chair is 25% less than the original price. In other words, the sale price is a fraction of the original price.

$$100\% - 25\% = 75\%$$
 (or $\frac{3}{4}$) of the original price

If x equals the original price, then the sale price can be written as an equation.

$$3/4 x = $240$$

To solve for x, divide each side of the equation by 3/4. (This is to undo the multiplication.)

$$\frac{3}{4}x \div \frac{3}{4} = \$240 \div \frac{3}{4}$$
 $\frac{3}{4}x \times \frac{4}{3} = \$240 \times \frac{4}{3}$
 $x = \$320$ (original price)

26-D The quotient is the answer in division. (Clear the decimal in the divisor before doing the arithmetic.)

$$\frac{0.675}{0.9} = \frac{6.75}{9} = 0.75 \text{ (quotient)}$$

27-B For the month between May 15 and June 15, the meter showed that the electric usage was

5,687 - 5,472 = 215 (kilowatt hours)
The first 10 kilowatt hours cost
The next 45 kilowatt hours cost
\$0.16 per kilowatt hour
The next 55 kilowatt hours cost
\$0.12 per kilowatt hour
\$6.60
All usage over the first 110 kilowatt hours was charged at a lower rate.

Thus, 215 - 110, or 105 kilowatt hours cost \$0.07 per kilowatt hour \$7.35

TOTAL bill for the month \$23.63

28-C To square a number, multiply it by itself.

$$49^2 = 49 \times 49 = 2,401$$

 $31^2 = 31 \times 31 = -961$
1,440 (difference)

- 29-A To find the number of seats in the auditorium, multiply the number of rows (x) by the number of seats in each row (y). This is expressed as xy.
- 30-A One way of checking a division example is to multiply the quotient (the answer) by the divisor. After multiplying, add the remainder (if there was one in the division answer). Thus

15 (divisor)

× 8 (quotient)

120

+ 7 (remainder, after division)

127 (original number)

State Trooper 18. The speed limit on the bridge is 35 mph, but Henry Smith crosses doing 42 mph. By what percent is he exceeding the speed limit? (A) 7% (B) 17% (C) 20% (D) 22% 19. The supply sergeant is filling out requisition forms and requests your ammunition needs for the next four months. Last month you used 270 rounds, including those needed for target practice. Assuming that you will be using about the same amount per month, how much ammunition should you request? (A) 880 rounds (B) 980 rounds (C) 1080 rounds (D) 1180 rounds 20. At 6:15 A.M. on a fog-bound morning, seven passenger cars, two vans, three tractor-trailers, and a bus pile up in a chain-reaction collision on the thruway. At 6:19 A.M. the first patrol car arrives on the scene and immediately radios for assistance. By 6:33 A.M. three ambulances, two fire engines, five tow trucks, and eight additional patrol cars have arrived. Between 6:33 A.M. and 7:15 A.M. three of the tow trucks hook up to damaged cars and remove them from the scene. How many vehicles remain at the accident site at 7:15 A.M.? (A) 32 (B) 26 (C) 25 (D) 20

21. State Patrol Barracks C, home base to 20 patrol cars, is responsible for patrolling 235 miles of thruway and the surrounding vicinity. One Thursday morning, three cars were out of service for maintenance and repairs and four cars were assigned to off-highway duties. If all remaining cars were assigned equal territories, approximately how many miles of thruway did each car

22. The average gasoline usage of a patrol car in highway service is 28 miles per gallon. Officer Prince took out a car with a full tank of gas and an odometer reading of 4,682 and returned it with an odometer reading of 5,067. Approximately how many gallons of gasoline did Officer

patrol?
(A) 12
(B) 17
(C) 18
(D) 19.5

Prince use? (A) 28 (B) 13.65 (C) 12.85 (D) 13.75

- 23. State troopers are permitted to place two in-state personal telephone calls per day at no charge. Excess phone calls are charged to the trooper at the rate of \$0.50 each for the first two calls and \$0.75 for each additional call. Out-of-state calls are billed at telephone company rates. Officer Zappa has been conducting family business by telephone during his break period. One day Officer Zappa made a long-distance call for which the charge was \$2.35. His total telephone bill for that day was \$5.60. How many telephone calls did Officer Zappa make that day?
 - (A) 8
 - (B) 7
 - (C) 9
 - (D) 6
- 24. Two troopers left the barracks at 3:00 P.M. Officer Tolski drove north maintaining an average speed of 42 mph. Officer Hara drove south at a steady speed of 38 mph. How many miles apart were the troopers at 4:30 P.M.?
 - (A) 6
 - (B) 80
 - (C) 120
 - (D) 150
- 25. A trooper left Barracks A at 9:15 A.M. and arrived at Barracks C at 2:45 P.M. How long did the trip take this trooper
 - (A) 6 hours 30 minutes
 - (B) 5 hours 30 minutes
 - (C) 5 hours 15 minutes
 - (D) 4 hours 45 minutes
- 26. A large group of demonstrators has gathered at a construction site to protest alleged discriminatory practices in hiring. The captain has dispatched 24 officers to avert a potential riot. No sooner have the officers arrived at the site when a call comes over the radio requesting that five officers report to a serious accident seven miles to the north. Shortly afterwards three officers are requested to control traffic at an intersection at which the traffic signal has malfunctioned. At the construction site, a worker is suddenly injured by a swinging boom, and two officers take the injured worker to the hospital in their patrol car. Then the captain arrives to survey the situation. What is the total number of law enforcers on hand to avert a riot?
 - (A) 14
 - (B) 15
 - (C) 21
 - (D) 22

- 27. Cars in police service receive very hard use and must be serviced every 3,000 miles or sooner. Officer Lindner's vehicle was last serviced at 8,782 miles. Officer Lindner drives an average of 140 miles a day, and his odometer currently reads 10,461. Within how many more working days must Officer Lindner bring in the car for servicing?
 - (A) 14
 - (B) 8
 - (C) 10
 - (D) 9
- 28. Officer Cohen's personal car was using 12 gallons of gasoline to travel 240 miles. Officer Cohen took the car to the mechanic for a tune-up and carburetor adjustment. After this service, Officer Cohen discovered that the car used only 80 percent as much gasoline as before. How many miles can Officer Cohen now drive with 12 gallons of gasoline?
 - (A) 320
 - (B) 280
 - (C) 300
 - (D) 342
- 29. The schedule of speeding penalties is as follows:

10% to 14% over the speed limit	\$ 25	
15% to 19% over the speed limit	\$ 35	
20% to 24% over the speed limit	\$ 50	
25% to 29% over the speed limit	\$ 70	
30% to 34% over the speed limit	\$100	
35% to 39% over the speed limit	\$125	
40% to 44% over the speed limit	\$150	
more than 44% over the speed limit	\$200	
-		

In a 40 mph zone, Officer David gave one ticket each to drivers clocked at 45 mph, 48 mph, and 53 mph and two tickets to drivers clocked at 60 mph and 58 mph respectively. Later that day while working in a 55 mph zone, Officer David gave two tickets to drivers traveling at 64 mph, one ticket to a driver clocked at 71.5 mph, and one ticket to a speeder doing 85 mph. If all ticketed drivers plead or are proven guilty, what is the total of fines to be collected from Officer David's tickets?

- (A) \$945
- (B) \$845
- (C) \$910
- (D) \$810

EXPLANATORY ANSWERS

- 18. (C) 42 35 = 7; he is exceeding the speed limit by 7 mph; $7 \div 35 = .20$; 7 is 20% of 35.
- 19. (C) $270 \times 4 = 1080$
- 20. (B) 7 cars + 2 vans + 3 trucks + 1 bus = 13 vehicles involved in the accident; 1 patrol car + 3 ambulances + 2 fire engines + 5 tow trucks + 8 patrol cars = 19 rescue vehicles; 13 + 19 = 32 vehicles at the scene. 3 tow trucks remove 3 damaged vehicles = 6 vehicles leave. 32 6 = 26 vehicles remain.
- 21. (C) 3 out of service + 4 with other duties = 7 not patrolling. 20 7 = 13 available to patrol. 235 ÷ 13 = 18 miles patrolled by each.
- 22. (D) 5,067 4,682 = 385 miles driven. $385 \div 28 = 13.75$ gal.
- 23. (A) \$2.35 + \$1.00 = \$3.35 for one long distance plus two in-state calls. $$5.60 $3.35 = $2.25 \div .75 =$ three more in-state calls. 1 + 2 + 3 = 6 + 2 free calls = 8 calls in all.
- 24. (C) 42 mph \times 1.5 hrs. = 63 miles to the north; 38 mph \times 1.5 hrs. = 57 miles to the south; 63 + 57 = 120 miles apart.
- 25. (B) 9:15 A.M. to noon = 12:00 9:15 = 11:60 9:15 = 2 hrs. 45 min. Noon to 2:45 P.M. = 2 hrs. 45 min; 2 hrs. 45 min. + 2 hrs. 45 min. = 4 hrs. 90 min. = 5 hrs. 30 min.
- 26. (B) 24 5 to the accident 3 to direct traffic 2 to the hospital = 14 + 1 captain = 15 officers on hand.
- 27. (D) 8,782 + 3,000 = 11,782 by which reading car must be serviced. 11,782 10,461 = 1,321 miles Lindner may drive. 1,321 ÷ 140 = 9.44 average working days to reach servicing mileage. Car may drive no more than 3,000 miles between servicing, so must be brought in within 9 days.
- 28. (C) 240 miles ÷ 12 gal. = 20 mpg original mileage. 80% of 12 gal. = 12 × .80 = 9.6 gal. 240 miles ÷ 9.6 = 25 mpg; 12 gal. × 25 mpg = 300 miles per 12 gal.
- 29. (A) Calculate percentage over the speed limit by subtracting the speed limit from the speed driven and dividing the difference by the speed limit. Thus, 45 mph in a 40 mph zone is: 45 40 = 5; 5 ÷ 40 = 12.5%. Similarly, 48 mph is 20% over the 40 mph limit, 53 mph is 33.5% over, and both 58 mph and 60 mph are more than 44% over the 40 mph limit. 64 mph is 16.36% over the 55 mph limit (and there were two such tickets), 71.5 mph is 30% over the 55 mph limit, and 85 mph is 54.5% over the 55 mph limit. Totaling up all the speeders and their fines:

1 car exceeding by 12.5% = \$25

2 cars exceeding by 16.36% = \$70 (\$35 each)

1 car exceeding by 20% = \$50

1 car exceeding by 30% = \$100

I car exceeding by 33.5% = \$100

3 cars more than 44% over = \$600 (\$200 each)

Total fines = \$945

WORD KNOWLEDGE



WORD KNOWLEDGE

Directions

This test has questions about the meanings of words. Each question has an underlined boldface word. You are to decide which one of the four words in the choices most nearly means the same as the underlined boldface word; then, mark the space on your answer form which has the same number and letter as your choice.

Now look at the sample question below.

- 1. It was a small table.
 - 1-A sturdy
 - 1-B round
 - 1-C cheap
 - 1-D little

The question asks which of the four words means the same as the boldface word, small. Little means the same as small. Answer D is the best one.

Your score on this test will be based on the number of questions you answer correctly. You should try to answer every question. Do not spend too much time on any one question.

When you begin, be sure to start with question number 1 in Part 3 of your test booklet and number 1 in Part 3 on your answer form.

Diagnose Your Problem

- 23-A <u>Decimation</u> means to kill a large part
- 24-A Angry, like <u>indignant</u> (from the Latin, "deeming unworthy"), implies deep and strong feelings aroused by injury, injustice, or wrong.
- 25-D Platitude, like <u>cliché</u> (originally, to pattern in clay), refers to a remark or an idea that has become trite—lost its original freshness and impressive force.
- 26-D Agreement means <u>harmony</u> among people, thoughts, or ideas.
- 27-D Lazy, like <u>indolent</u>, applies to one who is not active.
- 28-B Breathing, like respiration, means inhalation and exhalation of air.
- 29-B Watchful, like vigilant, means alert.

- 30-D Casual, similar to <u>incidental</u>, means happening by chance or without definite intention.
- 31-C To <u>succumb</u> is to cease to resist or contend before a superior force, hence to yield.
- 32-D <u>Feasible</u> describes that which is likely to come about, and is hence practicable.
- 33-C Many-sided, like <u>versatile</u> (from the Latin, "turning about"), means capable of turning with ease from one task to another.
- 34-B <u>Imperturbability</u> or calmness is almost synonymous with serenity.
- 35-D <u>Strident</u> (from the Latin, "creaking") means having an irritating or unpleasant, hence harsh, sound.

WORD KNOWLEDGE

			Answer	8		
1-C	6-C	11-A	16-D	21-D	26-D	31-C
2-A	7-C	12-D	17-B	22-C	27-D	32-D
3-C	8-A	13-D	18-C	23-A	28-B	33-C
4-A	9-D	14-B	19-B	24-A	29-B	34-B
5-B	10-A	15-D	20-C	25-D	30-D	35-D

Answers Explained

- 1-C To <u>subsume</u> means to include within a larger class or order.
- 2-A <u>Consensus</u>, like accord, means agreement.
- 3-C <u>Altercation</u>, like controversy, means a disagreement.
- 4-A <u>Irresolute</u>, like wavering, means to hesitate between choices.
- 5-B <u>Laconic</u>, like concise, means to express much in a few words.
- 6-C <u>Audition</u>, like hearing, means an opportunity to be heard.
- 7-C <u>Novice</u> designates one who has no training or experience in a specific field or activity and is hence a beginner.
- 8-A Pacific, like <u>concillatory</u>, implies trying to preserve or obtain peace.
- 9-D To neutralize, like to <u>counteract</u>, means to render ineffective.
- 10-A <u>Precedent</u>, like example, refers to an individual instance (e.g., act, statement, case) taken as representative of a type.
- 11-A <u>Diaphanous</u> ("dia-" is a Greek prefix meaning "through, across"), like transparent, describes material that light rays can pass through.

- 12-D <u>Deferred</u>, like delayed, means postponed.
- 13-D To accentuate, like intensify, means to emphasize or increase in degree.
- 14-B <u>Authentic</u> (from the Greek, "warranted"), like reliable, means entitled to acceptance or belief.
- 15-D <u>Unanimity</u>, like concurrence, means complete accord.
- 16-D <u>Notorious</u> and well-known are almost synonymous in meaning: being or constituting something commonly known.
- 17-B Former means preceding in time and is synonymous with previous.
- 18-C Both pliable and <u>flexible</u> mean to be easily bent or yielding, usually without breaking.
- 19-B The opportunity to choose is equivalent to freedom to select or exercise an option.
- 20-C To confirm, like verify, means to make certain, to corroborate or authenticate.
- 21-D Saucy, like pert, means bold or impudent.
- 22-C Tasteful, similar to <u>aesthetic</u> (from the Greek, "perceptive"), means having the ability to appreciate what is beautiful.

Model Examination One

17. Previous most nearly means 26-B pleasure 26-C discord 17-A abandoned 26-D agreement 17-B former 17-C timely 27. Indolent most nearly means 17-D younger 27-A moderate 18. Use a flexible metal. 27-B hopeless 27-C lazy 18-A breakable 27-D idle 18-B flammable 18-C pliable 28. His respiration was impaired. 18-D weak 28-A recovery 19. Option most nearly means 28-B breathing 28-C pulsation 19-A use 28-D sweating 19-B choice 19-C value 29. The job requires a vigilant attitude. 19-D preference 29-A sensible 20. You should verify the facts. 29-B watchful 29-C suspicious 20-A examine 29-D restless 20-B explain 20-C confirm 30. Incidental most nearly means 20-D guarantee 30-A independent 21. Pert most nearly means 30-B needless 30-C infrequent 21-A ill 30-D casual 21-B lazy 21-C slow 31. To succumb most nearly means 21-D saucy 31-A to aid 22. Aesthetic most nearly means 31-B to oppose 31-C to yield 22-A sentient 31-D to check 22-B sensitive 22-C tasteful 32. That solution is not feasible. 22-D inartistic 32-A capable 23. Decimation most nearly means 32-B harmful 32-C beneficial 23-A killing 32-D practicable 23-B annihilation 23-C armistice 33. Versatile most nearly means 23-D brawl 33-A well-known 24. She made an indignant response. 33-B up-to-date 33-C many-sided 24-A angry 33-D ambidextrous 24-B poor 24-C indigent 34. His imperturbability helps in a crisis. 24-D lazy 34-A obstinacy 25. Cliché most nearly means 34-B serenity 34-C sagacity 25-A commonplace 34-D confusion 25-B banality 25-C hackney 35. Strident most nearly means 25-D platitude 35-A swaggering 26. Harmony most nearly means 35-B domineering 35-C angry 26-A rhythm 35-D harsh

WORD KNOWLEDGE

Time: 11 minutes; 35 questions

1.	Subsume most nearly means	9.	The drug will counteract any effect.
	1-A understate 1-B absorb 1-C include 1-D belong		9-A undermine 9-B censure 9-C preserve 9-D neutralize
2.	Our committee reached consensus.	10.	Precedent most nearly means
	2-A accord 2-B abridgment 2-C presumption 2-D quota		10-A example 10-B theory 10-C law 10-D conformity
3.	Altercation most nearly means	11.	Diaphanous most nearly means
	3-A defeat 3-B concurrence 3-C controversy 3-D vexation		11-A transparent11-B opaque11-C diaphragmatic11-D diffusive
4.	Don't accuse him of being irresolute.	12.	We deferred our judgment.
	4-A wavering 4-B insubordinate 4-C impudent 4-D unobservant		12-A reversed 12-B accelerated 12-C rejected 12-D delayed
5.	Laconic most nearly means	13.	To accentuate most nearly means
	5-A slothful 5-B concise 5-C punctual 5-D melancholy		13-A to modify 13-B to hasten 13-C to sustain 13-D to intensify
6.	Audition most nearly means	14.	Authentic most nearly means
	6-A reception 6-B contest 6-C hearing 6-D display		14-A detailed 14-B reliable 14-C valuable 14-D practical
7.	The job was filled by a (an) novice.	15.	Unanimity most nearly means
	7-A volunteer 7-B expert 7-C beginner 7-D amateur		15-A emphasis 15-B namelessness 15-C disagreement 15-D concurrence
8.	A $\underline{\text{conciliatory}}$ attitude sometimes helps.	16.	Their actions made them notorious.
	8-A pacific 8-B contentious 8-C obligatory 8-D offensive		16-A condemned 16-B unpleasant 16-C vexatious 16-D well-known

Verbal Ability

VOCABULARY

The next twenty-five questions will test your vocabulary. Study how the word in the question is used in the context of the sentence. In many cases, the meaning of unfamiliar terms can be discerned. If this method still leaves doubt, attempt to break the word down using the etymology tables provided earlier. Between these two methods, most words seen in entry-level State Police officer exams can be determined.

- Establishing the point at which to arrest someone is an important factor in determining the admissibility of evidence. Admissibility most nearly means:
 - A. Condition
 - B. Likelihood of being allowed
 - C. Necessity
 - D. Interpretation
- The prospect of imminent danger to either the public or law enforcement personnel constitutes exigent circumstances. Exigent most nearly means:
 - A. Broad and far-reaching
 - B. Extenuating
 - C. Requiring immediate action
 - D. Unfortunate
- 3. A cursory search of the area was made prior to leaving. Cursory most nearly means:
 - A. Extensive
 - B. Thorough
 - C. Superficial
 - D. Detailed
- 4. Lawfully impounded inventory should not be used as a pretext to search for evidence. Pretext most nearly means:
 - A. Precondition
 - B. Means
 - C. Rule
 - D. Excuse
- 5. The Exclusionary Rule was adopted for the purpose of upholding the integrity of the courts. Integrity most nearly means:
 - A. Moral character
 - B. Superiority
 - C. Fairness
 - D. Improbable
- 6. The report said that the accused was convinced that the danger of serious harm was imminent. Imminent most nearly means:
 - A. Justifiable
 - B. Impending
 - C. Remote
 - D. Irrelevant

D. Indignant

Έ	TR	OOPER & HIGHWAY PATROL EXAM PREPARATION BOOK
	7.	The landmark case would serve as a <i>precedent</i> for future court rulings. <i>Precedent</i> most nearly means: A. Source of confusion
		B. Majority view
		C. Visible reminder
		D. None of the above
		The State of New York could not try Gary Willhouse for kidnapping because it did not have <i>jurisdiction</i> . <i>Jurisdiction</i> most nearly means:
		A. Justification
		B. Authority
		C. Enough power
		D. Probable cause
		The theft of professional services and public utilities is still considered theft of property, albeit <i>intangible</i> property, whether taken by deception or by failure to pay for such services. <i>Intangible</i> most nearly means:
		A. Insignificant
		B. Invaluable
		C. Not corporeal
		D. White collar
	10.	The evidence was ruled immaterial to the case at hand. Immaterial most nearly means:
		A. Not pertinent
		B. Admissible
		C. Substantive
		D. Relevant
	11.	The fact that Mr. Wilson had been convicted twice for trafficking in narcotics lessened his <i>credibility</i> as a star witness. <i>Credibility</i> most nearly means:
		A. Trustworthiness
		B. Anxiety
		C. Incredulity
		D. Demure
	12.	Violence was so common in one neighborhood that residents soon became <i>indifferent</i> to the occurrences. <i>Indifferent</i> most nearly means:
		A. Attentive
		B. Apathetic
		C. Intolerant

13. Cheryl was quite overt in her sexual advances toward an undercover officer. Overt most nearly means:
A. Shy
B. Blunt
C. Conspicuous
D. Slow
14. There can be fairly substantial disparities in what police officers earn depending on where they live and serve. Disparities most nearly means:
A. Penalties
B. Similarities
C. Compensations
D. Differences
15. Detective Peterson was hoping his actions would not be misconstrued as aggressive. Misconstrued most nearly means:
A. Misinterpreted
B. Judged
C. Criticized
D. Analyzed
16. Officer Mitchell demonstrated flagrant incompetence by not mirandizing the suspect at the time of the arrest. Incompetence most nearly means:
A. Inability
B. Inhibition
C. Incongruity
D. Disregard
17. It is <i>imperative</i> that someone be told at the time of his or her arrest what specifically it is that he or she is being arrested for. <i>Imperative</i> most nearly means:
A. Unimportant
B. Immaterial
C. Compulsory
D. Considerate
18. Officer Miller experienced some degree of trepidation every time he had to unholster his handgun in the line of duty. Trepidation most nearly means:
A. Having power
B. Hesitation
C. Quandary
D. Trembling

D. Monitor

19. The buildings in the downtown core were pretty dilapidated. Dilapidated most nearly means: A. Modern B. Tall C. Neglected D. New 20. The purpose of investigative detention is to resolve an ambiguous circumstance. Ambiguous most nearly means: A. Infallible B. Uncertain C. Argumentative D. Interesting 21. Officers are instructed not to act condescendingly toward citizens in the line of duty. Condescending most nearly means: A. Discourteous B. Harsh C. Unprofessional D. Patronizing 22. Unconscious intoxicated persons should be transported to a nearby medical facility by an ambulance instead of a patrol car to alleviate potential civil liability. Liability most nearly means: A. Responsibility B. Exemption C. Scrutiny D. Considerations 23. The phone calls were intended to intimidate the witness. Intimidate most nearly means: A. Comfort B. Ostracize C. Frighten D. Relieve 24. Building containment for the two officers was nearly impossible because there were too many means of egress for the suspect. Egress most nearly means: A. Entrance B. Exits C. Approach D. Attack 25. The purpose of traffic control is twofold: to expedite traffic and to eliminate potential traffic conflicts. Expedite most nearly means: A. Deter B. Speed the progress of C. Prevent congestion

ANSWER SHEET FOR VOCABULARY SAMPLE QUESTIONS

1. (A) (B) (C) (D) 2. (A) (B) (C) (D)

3. (A) (B) (C) (D)

4. A B C D

5. A B C D

6. A B C D

7. A B C D

8. (A) (B) (C) (D)

9. A B C D

10. A B C D

11. A B C D

12. A B C D

13. A B C D

14. A B C D

15. A B C D

16. A B C D

17. (A) (B) (C) (D)

18. A B C D

19. (A) (B) (C) (D)

20. A B C D

21. A B C D

22. A B C D

23. A B C D

24. (A) (B) (C) (D)

25. A B C D

ANSWERS TO VOCABULARY SAMPLE QUESTIONS

Note: The answers have been provided for the vocabulary section without explanation. If further reference is needed, consult a dictionary.

16. A 7. D 10. A 13. C 19. C 22. A 25. B B 14. D 17. C 20. B 23. C 8. B 11. A 2. C 5. A 9. C 12. B 15. A 18. D 21. D 24. B 3. C 6. B

Your score for each exercise would be as follows:

Reading comprehension exercises:

18-20 correct - EXCELLENT

16-17 correct - GOOD

13-15 correct - FAIR

Less than 13 correct—POOR

Vocabulary exercises:

23-25 correct - EXCELLENT

21-22 correct - GOOD

19-20 correct - FAIR

Less than 19 correct - POOR